

Dicentra canadensis

Status

Federal status: G5 N5, Not listed

NH state status: S2S3, Threatened

ME state status: S1, Threatened

Nearly one-third of NH and ME occurrences are listed as historic, but with no indication of whether they have been looked for in recent years. All WMNF occurrences are extant with no indication of decline.

The expert panel indicated that the current outcome for this species is a B heading toward C range-wide due to the loss of low elevation land to farming in the Midwestern portion of the range. On the WMNF, it is probably a B and stable. There are few sites and none are large, but it has protection as a RFSS, so should stay stable.

Distribution

Dicentra canadensis occurs from Ontario, Quebec, and Nova Scotia south to Florida and west to Missouri and Minnesota.

In New Hampshire, it has been found in Bartlett, Alstead, Jaffrey, Clarksville, Colebrook, Columbia, Lancaster, Northumberland, Stark, Stratford, Benton, Franconia, Hanover, Lyman, Lyme, Thornton, Hillsboro, Claremont, and Plainfield. Extant occurrences in Benton, Bartlett, Franconia, Stark, and Thornton are on the WMNF. In Maine, it is documented in Farmington, T04R07, Bowmanton, Patten, Strong, and Batchelder's Grant. The two extant occurrences in Batchelder's Grant are on the WMNF.

Habitat

Dicentra canadensis is a classic enriched hardwood forest species. It is usually found in low elevation, rich, moist hardwood or mixed forest habitat. Calcium and other nutrient availability is the key habitat feature.

It prefers partial to full shade and a rich herbaceous layer. Canopy often includes sugar maple, white ash, hop hornbean, yellow birch, hemlock. This species is often at the base of trees, so there may be a connection to tree stem flow. In Maine it is regularly found downslope of ledge outcrops or loose slabs.

Limiting Factors

The primary limiting factor for this species in the WMNF is a lack of suitable calcium-rich habitat. Range-wide and locally, development has resulted in the loss of suitable habitat. Timber harvest may have impacts due to habitat alteration and direct impacts to plants. Invasive plants, such as wild chervil, garlic mustard, and gout weed, may impact populations. Herbivory and root by wild turkey is a concern for this species.

Viability concern

WMNF is at the eastern edge of this species' range. WMNF contains 29% of NH total population, and almost half of known extant population. WMNF has few sites due to lack of suitable calcium-rich habitat, so is rare. Management activities could impact individuals and populations.

Management activities that might affect populations or viability

Timber harvest is the primary management activity that could affect this species. Direct impacts to plants could occur if harvest was conducted during the snow-free season; winter logging could prevent this impact.

Canopy removal may affect this species, though what level canopy closure is preferred is uncertain. The literature and experts all indicate it prefers a relatively closed canopy, so substantial canopy removal could be detrimental. However it has been found in a regenerating stand adjacent to a forest stand in which it occurred prior to the harvest. Whether the population in the young forest will survive and do well will not be known for several years.

Any other activities that would trample or disturb the soil around known populations, such as trail and road construction, would be detrimental.

References

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